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IN THE CLAIMS

Claims 1 – 6 are currently pending in the present application. Amended claim 1 and the associated dependent claims are presented for consideration. Claims 7-20 have been withdrawn from further consideration pursuant to the election filed on 02/02/2007. In accordance with 37 CFR 1.121, a complete listing of the claims is provided.

1. (Once Amended) An apparatus for measuring the content of water in an emulsion including hydrocarbons and water, the apparatus comprising:

a conduit through which the emulsion may flow from a first point to a second point;

at least one measurement device configured selected to measure density and capacitance of the emulsion within the conduit to generate a density value and a capacitance value; and

a computing device configured for capable of receiving the density value and the capacitance value from the at least one measurement device, and the computing device being configured for the purpose of determining the content of water in the emulsion through the application of a refractive index in relation to the capacitance value and the density value.

2. (Cancelled) An apparatus for measuring the content of water according to claim 1 wherein the emulsion is a mixture of unrefined oil and water.

3. (Once amended) An apparatus for measuring the content of water according to claim 1 wherein the at least one measurement device further is selected configured to measure temperature of the emulsion within the conduit to generate a temperature value.

4. (Original) An apparatus for measuring the content of water in hydrocarbons according to claim 1 wherein the conduit is a pipe for conveying oil at a storage facility.

- 3 -

5. (Once Amended) An apparatus for measuring the content of water in hydrocarbons according to claim 1 ~~claim 4~~ wherein the conduit comprises a pipe extending extends between a truck and a holding tank whereby the emulsion is off-loaded from the truck into the holding tank.

6. (Once Amended) An apparatus for measuring the content of water in hydrocarbons according to claim 1 wherein the at least one measurement device is a ~~capacitance~~ device capable of deriving configured to determine a capacitance value.